

WHAT IS CLAIMED IS:

1. A device for detecting a communication-interfering jammer in the proximity of a communication equipment normally receiving an intelligible signal,
5 comprising:

means for detecting an absence of reception of the intelligible signal by the communication equipment;

means for discriminating the detection of a communication-interfering jammer in the proximity of the communication equipment from at least one other
10 cause for the absence of reception of the intelligible signal by the communication equipment; and

means for detecting a communication-interfering jammer in the proximity of the communication equipment when the discriminating means indicates that there exists no other cause for the absence of reception of the intelligible signal
15 by the communication equipment.

2. A method for detecting a communication-interfering jammer in the proximity of a communication equipment normally receiving an intelligible signal, comprising:

20 detecting an absence of reception of the intelligible signal by the communication equipment;

discriminating the detection of a communication-interfering jammer in the proximity of the communication equipment from at least one other cause for the absence of reception of the intelligible signal by the communication equipment;

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detecting a communication-interfering jammer in the proximity of the communication equipment when the discrimination indicates that there exists no other cause for the absence of reception of the intelligible signal by the communication equipment.

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3. A method for detecting a communication-interfering jammer as defined in claim 2, wherein discriminating the detection of a communication-interfering jammer comprises:

5 discriminating the detection of a communication-interfering jammer in the proximity of the communication equipment from an out-of-coverage situation.

4. A method for detecting a communication-interfering jammer as defined in claim 2, wherein discriminating the detection of a communication-interfering jammer comprises:

10 discriminating the detection of a communication-interfering jammer in the proximity of the communication equipment from a situation of interference.

5. A method for detecting a communication-interfering jammer as defined in claim 2, wherein the communication equipment comprises at least one
15 common control channel and wherein discriminating the detection of a communication-interfering jammer comprises:

discriminating the detection of a communication-interfering jammer in the proximity of the communication equipment from a situation of interference on said at least one common control channel.

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6. A method for detecting a communication-interfering jammer as defined in claim 3, wherein the communication equipment comprises at least one common control channel, and wherein discriminating the detection of a communication-interfering jammer in the proximity of the communication
25 equipment from an out-of-coverage situation comprises:

comparing an average power level on the common control channel of the communication equipment with a predicted noise floor.

7. A method for detecting a communication-interfering jammer as defined
30 in claim 6, wherein discriminating the detection of a communication-interfering jammer in the proximity of the communication equipment from an out-of-coverage situation comprises:

detecting an out-of-coverage situation when the comparison between the average power level and the predicted noise floor indicates that a difference between said average power level and said predicted noise floor is lower than a given threshold.

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8. A method for detecting a communication-interfering jammer as defined in claim 6, wherein, when the comparison between the average power level and the predicted noise floor indicates that a difference between said average power level and said predicted noise floor is higher than a given threshold, discriminating the detection of a communication-interfering jammer in the proximity of the communication equipment from an out-of-coverage situation comprises:

detecting either a communication-interfering jammer in the proximity of the communication equipment or a situation of interference on the common control channel.

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9. A method for detecting a communication-interfering jammer as defined in claim 6, wherein, when the comparison of the average power level with the predicted noise floor indicates that the difference between said average power level and said predicted noise floor is approximately equal to a given threshold, discriminating the detection of a communication-interfering jammer in the proximity of the communication equipment from an out-of-coverage situation comprises:

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waiting for a short period of time;

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after said short period of time has elapsed, detecting whether there is still an absence of reception of the intelligible signal by the communication equipment; and

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in the absence of reception of the intelligible signal by the communication equipment, repeating said comparison of the average power level on the common control channel of the communication equipment with the predicted noise floor.

10. A method for detecting a communication-interfering jammer as defined in claim 3, wherein the communication equipment comprises a set of channels, and wherein discriminating the detection of a communication-interfering jammer in the proximity of the communication equipment from a situation of interference comprises:

comparing to each other power levels of at least a portion of the channels of said set.

11. A method for detecting a communication-interfering jammer as defined in claim 10, wherein discriminating the detection of a communication-interfering jammer in the proximity of the communication equipment from a situation of interference further comprises:

detecting a situation of interference when the comparison of the power levels indicate that the power levels of said at least a portion of the channels are different from each other.

12. A method for detecting a communication-interfering jammer as defined in claim 10, wherein detecting a communication-interfering jammer in the proximity of the communication equipment comprises:

detecting a communication-interfering jammer in the proximity of the communication equipment when the comparison of the power levels indicate that the power levels of said at least a portion of the channels are similar to each other.

13. A device for detecting a communication-interfering jammer in the proximity of a communication equipment normally receiving an intelligible signal, comprising:

a detector of an absence of reception of the intelligible signal by the communication equipment;

a discriminator of the detection of a communication-interfering jammer in the proximity of the communication equipment from at least one other cause for

the absence of reception of the intelligible signal by the communication equipment; and

5 a detector of a communication-interfering jammer in the proximity of the communication equipment when the discrimination means indicates that there exists no other cause for the absence of reception of the intelligible signal by the communication equipment.

14. A device for detecting a communication-interfering jammer as defined in claim 13, wherein the discriminator comprises:

10 a detector of an out-of-coverage situation, the out-of-coverage situation constituting said at least one other cause for the absence of reception of the intelligible signal by the communication equipment.

15 15. A device for detecting a communication-interfering jammer as defined in claim 13, wherein the discriminator comprises:

a detector of a situation of interference, said situation of interference constituting said at least one other cause for the absence of reception of the intelligible signal by the communication equipment.

20 16. A device for detecting a communication-interfering jammer as defined in claim 13, wherein the communication equipment comprises at least one common control channel and wherein the discriminator comprises:

a detector of a situation of interference on the common control channel, said situation of interference on the common control channel constituting said at least one other cause for the absence of reception of the intelligible signal by the communication equipment.

30 17. A device for detecting a communication-interfering jammer as defined in claim 14, wherein the communication equipment comprises at least one common control channel, and wherein the discriminator further comprises:

a comparator of an average power level on the common control channel of the communication equipment with a predicted noise floor.

18. A device for detecting a communication-interfering jammer as defined in claim 17, wherein the detector an out-of-coverage situation comprises:

5 means for detecting an out-of coverage situation when the comparison between the average power level and the predicted noise floor indicates that a difference between said average power level and said predicted noise floor is lower than a given threshold.

10 19. A device for detecting a communication-interfering jammer as defined in claim 17, wherein the discriminator comprises means for detecting, when the comparison between the average power level and the predicted noise floor indicates that a difference between said average power level and said predicted noise floor is higher than a given threshold, either a communication-interfering jammer in the proximity of the communication equipment or a situation of
15 interference on the common control channel.

20 20. A device for detecting a communication-interfering jammer as defined in claim 17, wherein the discriminator comprises, when the comparison between the average power level and the predicted noise floor indicates that the difference between said average power level and said predicted noise floor is approximately equal to a given threshold:

a timer for generating a short period of time;

25 the detector of an absence of reception comprises means for detecting, after said short period of time has elapsed, whether there is still an absence of reception of the intelligible signal by the communication equipment; and

the comparator comprises means for repeating, in the absence of reception of the intelligible signal by the communication equipment, the comparison of the average power level on the common control channel of the communication equipment with the predicted noise floor.

21. A device for detecting a communication-interfering jammer as defined in claim 15, wherein the communication equipment comprises a set of channels, and wherein the discriminator comprises:

5 a comparator of power levels of at least a portion of the channels of said set to each other.

22. A device for detecting a communication-interfering jammer as defined in claim 21, wherein the discriminator comprises:

10 a detector of a situation of interference when the comparison of the power levels indicate that the power levels of said at least a portion of the channels are different from each other.

23. A device for detecting a communication-interfering jammer as defined in claim 21, wherein the detector of a communication-interfering jammer in the proximity of the communication equipment comprises:

15 means for detecting a communication-interfering jammer in the proximity of the communication equipment when the comparison of the power levels indicate that the power levels of said at least a portion of the channels are similar to each other.

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